

one a little of Stevenson, and again of Hudson and Thoreau. His chapter on "Silences" is delicately wrought and as "soothing as the perfume of violets."

The volume contains a great deal about fruits and flowers, and several chapters are devoted to marine life. Bird-life is dealt with in Chapters xix., xx., and xxi., under the captions "Intelligent Birds," "Swifts and Eagles," and "Socialistic Birds" respectively. The Koel (*Eudynamis cyanocephala*) forms the subject of a discursive essay, which should be read for its picture of the Cuckoo as a scout. "Do birds play?" asks Mr. Banfield, and proceeds to describe the actions of two young Cassowaries (*Casuarius australis*) which playfully performed martial exercises. The birds were wont to stride about a stout post, lurch against it, and, feigning fury, lash out at the piece of wood with unrestrained violence. Anecdotes of a clever Red-collared Lorieet, which played the game of stalking with a yellow cat, and of a Scrub-Fowl that laid her eggs in a space between two horizontal slabs of granite—a natural incubator—are given, and there are many interesting notes regarding the Nutmeg-Pigeon and the nesting habits of the Shining Calornis.

A small colony of the Grey-rumped Swiftlet (*Collocalia francica*) exists on Dunk Island, and Mr. Banfield has studied the birds closely. The nests are situated in a cave on one of the highest points of the island, being fastened to the roof by "a semi-transparent white substance resembling isinglass," with which also the materials composing them—fine grass, moss, and fibre—are consolidated. The Swiftlet lays a single white egg, and the breeding season extends over 4 months, the earliest date on which a newly-laid egg was discovered being 14th October. As far as Mr. Banfield has observed, the birds never rest save in the cave, clinging to the nests or to the roof. They do not utter a note "except the reassuring prattle upon alighting on the edge of the nest."

"My Tropic Isle" is a delightful chronicle of island life—a book to possess, not to borrow. It should be added the volume is well printed and bound, and contains a number of half-tone illustrations reproduced from photographs.

---

## Correspondence.

### NOMENCLATURE OF AUSTRALIAN AVIFAUNA.

To the Editors of "*The Emu*."

SIRS,—I have read with considerable interest Mr. Gregory M. Mathews' letter in the last issue of *The Emu* (pp. 52–58), relative to the nomenclature of the Australian avifauna.

Before commenting upon the letter, I desire, as one deeply

interested in Australian ornithology, to express appreciation of the invaluable services rendered by Mr. Mathews in the above connection, and although many Australian ornithologists, including myself, are not altogether *ad idem* with Mr. Mathews in his recent renunciation and abandonment of well-settled laws, we can still (notwithstanding his upbraiding) admire the work he has done and is doing, and can justly appraise its value.

For the purposes of comment, Mr. Mathews' letter may, I think, be divided into two sections, namely:—The advocacy of (a) the government of scientific names by the International Code, and (b) the trinominal system in preference to the binominal one.

In dealing with both sections collectively, it will, perhaps, be as well to bear in mind that the only representation Australia had at the International Congress which formulated the Code was that of Great Britain; consequently, until the British ornithological authorities give some indication or declare their intention of abandoning the 13th edition of the *Systema Naturæ* (the recognition and adoption of which Mr. Mathews alleges is the "gist" of the whole trouble), Australia, obviously, cannot decorously move. To my mind, the difficulty may be readily overcome by Mr. Mathews convincing the British Museum authorities that their adherence to the 13th edition is a "conservatism antagonistic to progress." If that be done (and it should not be difficult of achievement if Mr. Mathews' allegations as to the result of conservatism be true), and the authorities named espouse the new laws, Australia will perforce fall into line.

Upon the "law of priority," it must be frankly admitted that Mr. Mathews has very ably and succinctly preferred, on behalf of deceased ornithologists, well-founded claims for recognition of their work, and Mr. Mathews' efforts in this direction indicate a very high sense of justice. At the same time, it is most difficult to reconcile that gentleman's advocacy of those claims with his recent action in seeking to deprive the deceased naturalist Brisson of the fruits of his labours by deleting his name from the authorship of so many genera. I expect, of course, to be told that his (Brisson's) generic names were "nude" names, and that he did not apply the principles of binary nomenclature according to the Articles; but, although the advancement of such an argument (if it be advanced) may be an excellent ground for the rescission of such an arbitrary and inequitable rule, it cannot for one moment be regarded (if it be so pleaded) as a justification for a positive injustice.

Dealing with the second section of Mr. Mathews' letter—namely, the preferential adoption of the trinominal system—I confess that I have a very strong leaning towards trinomials, as by their use the different shades of distinction between closely-related forms may be readily indicated. On the other hand, there is the radical objection to the system by reason of its cumbersomeness; and, again, to attach three very long Latin or Greek names to a very small bird will undoubtedly militate against the popularization

of the study of ornithology. I venture to think that the advantages of the system could be achieved by the use of the prefix "sub" or "pseudo" to the specific name of the dominant species, and, if this usage were found practicable, obviously it would secure the advantage of ready differentiation and avoid the disadvantage of name triplication.

Mr. Mathews quotes certain written statements of Mr. A. J. North as supporting the adoption of trinomials. The reference is an unhappy one if the quotation be critically examined. Mr. North's statement, as quoted, is that "trinomial nomenclature has not yet been adopted by Australian ornithologists, although that does not protect Australian ornithological nomenclature from the *hair-splitting* of the most ardent sub-species maker resident elsewhere." The innuendo is manifestly clear; but, whatever the merits or demerits of either system may be, I, as a member of the Check-list Committee, intend (quite regardless of my personal leanings) to give loyal adherence to the system presently adopted by the national authority on ornithology within the British dominions—namely, the British Museum. In doing so I may be charged (and perhaps with sufficient warrant) as being conservative or unprogressive, but that I must accept. It is more essential, in my opinion, to have a uniformity of procedure, even if we have not absolute unanimity of thought, as by the former confusion will be avoided and consistency and certainty maintained. It cannot be but mischievous to any study to have divers systems of nomenclature simultaneously co-existent in the one dominion.

In another realm of science there exists a well-known maxim, *omnis innovatio plus novitate perturbat quam utilitate prodest*—that "every innovation disturbs more by its novelty than benefits by its utility"—and it is worth considering if it is not equally applicable to ornithological nomenclature.

The non-acceptance of trinomials by Australian ornithologists need not, I think, trouble Mr. Mathews in his new work, for it is still open to him to set out both, in the manner, I understand, he has done in the first parts of his new work.—I am, &c.,

ALEX. WM. MILLIGAN.

103 William-street, Melbourne. 6/9/11.

---

#### DESCRIPTIONS AND DIMENSIONS OF EGGS.

*To the Editors of "The Emu."*

DEAR SIRs,—Ornithology, like all other biological sciences, is advancing rapidly, and to keep abreast of the times its methods require re-adjustment, more especially with regard to that branch known as oology.

To gain a comprehensive knowledge of oology in all its details

a method is needed that will reveal it without unnecessary mental exertion. A most important item is the systematic description and measurement of sets of eggs, whereby an accurate configuration of their various peculiarities is conveyed to students. This attained, ornithologists will be furnished with material which will help in the elucidation of the laws which govern the multitudinous variations, which at present are very imperfectly understood. The terminology needs to be more definite to meet the requirements of expanding research. With the present system, I venture the opinion that very few cast more than a casual glance at measurements given. In displacing old methods of science, the new must justify itself by obvious advantages. The method I suggest is a division of the egg into definite areas, so that description and examination may be facilitated. It is analogous to that employed by astronomers in dividing the surface of the moon into definite areas, each of which may be surveyed without reference to the contiguous ones. The system may also be likened to the principle of geographers of animal life, who divide regions into sub-regions to simplify their tabulation. It is therefore necessary to have some kind of table to produce statistical evidence wherewith to arrive at the mean shape, size, and colour of eggs of any given species. Every oologist has experienced difficulty in identifying, or discriminating between, eggs of allied species, and any attempt to formulate a rule to enable students to distinguish the eggs of one species from those of another is futile. So far as I know, no attempt has been made to establish a *mean* description of any species—that is, a description based on statistics.

While we may observe sets of A and B alike, C will be different; hence, descriptions based on statistical methods would help one to arrive at a normal type—that is to say, a type which occurs most frequently in our observations. One hundred sets described and measured may prove to have 35 approaching A, 55 of the B type, and 10 of the C type. A and B being similar, the *mean* or *normal* type would be derived from them.

It is manifest that a more expeditious method of describing in detail is needed, especially for the use of future generations, who will have, perhaps, nothing but descriptions handed down to them to work upon, as rare types will not be available for students. Great advantages would accrue by the detailed description of rare species, such as *Atrichia rufescens*, *Ptilorhis paradisea*, &c. This system would be distinctly advantageous in describing type sets, as the salient features of each egg could be treated minutely. Much verbiage will scarcely succeed in conveying a definite idea unless accompanied by a concrete guide. The oologist describing an egg thinks his description perfect; but the student who has to educe a mental picture from the describer's words is apt to strain his imagination, and is at a great disadvantage compared with the describer, who has the actual specimen in view.

The following diagrams roughly illustrate my suggestions:—

A SET OF TWO EGGS.

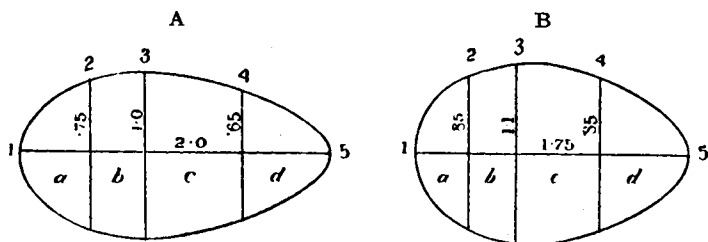


FIG. 1.

FORMULÆ OF THE TWO EGGS (A AND B), FIG. 1.

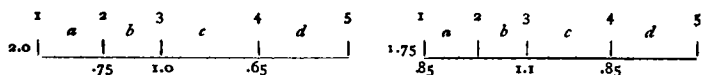


FIG. 2.

#### TERMINOLOGY.

##### Points of an Egg.

1. Base.
2. Zonal point.
3. Diametral point.
4. Sub-apical point.
5. Apex.

##### Areas of an Egg.

- (a) Basal.
- (b) Zonal.
- (c) Sub-apical.
- (d) Apical.

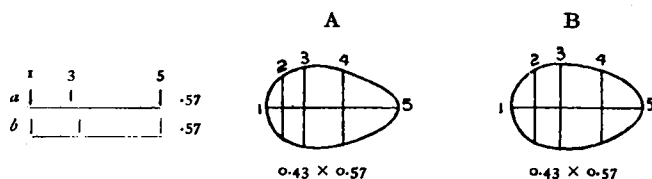
#### THE METHOD OF MEASURING AND DIVIDING FOR DESCRIPTION.

Fig. 1.—Ascertain the distance of the greatest diameter from the larger end (base) of the egg, from which point all measurements are to be made, and make this point (3) the axis of division for the intermediate points 2 and 4. The point 2 is exactly half-way between 1 and 3, and the point 4 is half-way between 3 and 5. Thus, we have the egg with five points (1, 2, 3, 4, and 5) and four spaces (a, b, c, d), which we can designate as areas, and which are to be used for the purposes of description.

Fig. 2.—These are lines to represent the exact lengths of the eggs (Fig. 1, A and B), and intersected to indicate where the measurements of diameters are made (A and B, Figs. 1, 2, 3, 4). These lines, or formulæ, can be printed with the descriptions, and thus convey a definite idea of the lengths and various diameters of the eggs from which they were made. The areas a, b, c, d (Fig. 1, A and B), are represented in the formulæ by the same letters. The numbers 2, 3, and 4 indicate the respective diametral measurements, and are placed above the line, with their actual measurements under the line, and opposite to them. The object of measuring from the larger end is to meet specimens like *Orthonyx spaldingi*, so that where the diametral point is made, the intermediate point 4, or sub-apical point, is in a position to show the degree of tapering towards the apex.

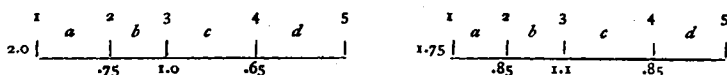
In *The Emu*, vol. ix., part 3, page 136, S. W. Jackson gives a

description of the eggs of *Acanthiza tenuirostris*. A and B are alike— $0.57 \times 0.43$ ; but this does not show the actual position or point of the diametral measurement, which would be ascertained by means of a formula, and probably depicted as here shown:—



Although the dimensions are given as the same, in all probability the eggs are dissimilar. The object of the three diametral measurements is to illustrate this graphically. The formulæ are relative to the particular set of eggs under examination; consequently, every set examined will have its own series of formulæ. We could proceed to describe eggs as follows:—

FORMULÆ OF FIG. 1.



*No. in Set.*—Two. *Shape.*—(a) elongate-oval; (b) oval.

*Surface.*—Dull, &c. *Texture.*—Smooth, &c.

*Ground Colour* (refer to formula).—A.—Basal area (a) blue, shading to light blue in sub-apical (c), and then to white in apical area (d).

*Underlying Markings.*—Almost invisible, greyish, &c.

*Surface Markings.*—Lineal, streaky, &c.

*Colour of Markings.*—Green, &c. (or No. of colour chart).

*Disposition of Markings.*—A.—Forming a distinct zone in the zonal area (b). B.—Zone mostly in zonal, and overlapping slightly into basal area (a).

From descriptions here given, it is possible to draw, and fill in, the characteristics of eggs. The terms I have provisionally proposed would, I venture to think, be of inestimable value, as defined areas would get rid of a lot of confusion in relation to descriptions, being preferable to such terms as “larger” and “smaller” end. Basal, zonal, sub-apical, apical, would always stand for a particular position in all eggs, and their use would always develop a mental picture of that part of the egg they denote.

*Shape.*—Consistency is requisite in the adoption of terminology relative to shape. Ovate, oval, elongate-oval, elliptical, rotundate, &c., could be fixed in relation to the greatest diameter and length.

*Surface and Texture* require set terms.

*Colour of Markings and Ground Colour.*—The colour chart will obviate all difficulties, and make possible a uniform description.

*Underlying and Surface Markings*—It is important to establish

finality in regard to markings. Freckles, spots, blotches, dots, streaks, &c., should each have a definite delineation.

*Disposition of Markings* also requires treatment. Continuous or broken zone, compact or loose cap, would express the state of concentrated or scattered colouration.

The egg constitutes a part of the bird as much as the beak, feathers, &c., and requires scientific treatment on the same lines.

The investigation of the phenomena underlying the causes of variation in nature is one of the most sublime and fascinating problems of biology. By concentrating attention on the problem of egg variations, the student may ultimately be led to the discovery of laws controlling variations among individuals of the species. Whether these laws are influenced by climatology, physiology, physico-chemistry, or the action and reaction due to the subtle inter-relation of organisms, remains to be unriddled.

A conference of leading ornithologists should bring to finality the suggestions herein roughly adumbrated.—Yours, &c.,

P. A. GILBERT.

Redfern, Sydney, 26/1/11.

### South Australian Ornithological Association.

THE monthly meeting of this Ornithological Association was held in the Royal Society's rooms, North-terrace, on Friday evening, 5th May. Captain S. A. White presided. The secretary (Mr. J. W. Mellor) reported that a deputation had waited upon the Commissioner for Crown Lands with a request that the Pelican be placed upon the partially-protected list. The deputation appreciated the manner in which it was received, especially on hearing that part of the Coorong was likely to be declared a bird sanctuary. Mr. E. Ashby brought forward a notice of the deputation on the Kangaroo Island reserve on 13th June, when the Government would be asked to fulfil the promises of former Ministries. Captain White read a paper on "The Birds of the Riverina District," which he visited last year. He showed numerous specimens of the birds, among which were the beautiful "Green-leek" (*Polytelis barrabandi*), Yellow Parrakeet (*Platycercus flaveolus*), Rose-breasted Cockatoo (*Cacatua roseicapilla*), Grey Jumper (*Struthidea cinerea*), Chough (*Corcorax melanorhamphus*), and Yellow-throated Friar-Bird (*Philemon citreogularis*). A long discussion occurred on the genus *Sericornis*. Mr Ashby showed birds from Dandenong Ranges, Gippsland, and Ballarat (Victoria), and from South and Western Australia. Mr. Mellor exhibited specimens from Eyre Peninsula. Mr. Robert Zietz (Ornithologist of the Adelaide Museum) read an extensive list, and brought numerous specimens for comparison; and Dr. A. M. Morgan showed the eggs of three rare species.

The July meeting of this Association was held in the Royal Society's rooms on Friday evening, the 28th. Captain S. A. White presided. The secretary, Mr. J. W. Mellor, reported having received letters from the Commissioner of Crown Lands in regard to the reservation